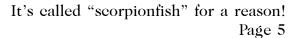


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White seabass bounce back, thanks to these volunteers. Page 10

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Interested in trying ocean fishing? Get your feet wet on a party boat excursion.

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ecreational ocean fishing is not only a popular California pastime, it generates about \$5 billion in personal income and provides for more than 150,000 jobs, according to a 1994 University of California study.

There are two Californias when it comes to recreational ocean fishing: those fisheries south of Point Conception, and those north of Point Conception to the California-Oregon border. Not counting salmon, which are tallied separately from marine species, anglers in Southern California accounted for 64 percent of the total statewide recreational catch in 1997, and all of the catch of three of the top 10 species: yellowtail, Pacific barracuda, and barred sand bass. Sport fishermen in Southern California also caught 99 percent of the kelp bass and Pacific bonito and 73 percent of the California halibut. Northern California sport fishermen dominated in salmon, yellowtail rockfish, lingcod, blue rockfish, tunas and mackerels, as well as most nearshore rockfish.

California's nearshore ecosystem is known as one of the most productive ocean areas in the world, encompassing 2,550 square miles and generating more than \$40 million in revenue. Nearshore fisheries have existed for decades and were primarily the domain of recreational anglers, who fished with hooks and

lines from small boats and kayaks or with spears while free-diving or scuba diving. However, in the 1980s, commercial fishermen in Southern California began targeting some nearshore species, especially California sheephead, for a growing market for live fish sold in restaurants. More recently, commercial fishermen in Northern California, who were hard pressed by reductions in other fisheries, began fishing for nearshore rockfish to supply the live-fish market. This has had an alarming effect on the fishery and, as a result, prompted the state Legislature to consider legislation to manage the nearshore finfish fishery. Late in the

## "Despite some tightened restrictions, opportunities abound for recreational anglers."

1998 legislative session, two bills were combined and the Nearshore Fisheries Management Act became part of landmark legislation called the Marine Life Management Act (MLMA), also known as the Keeley Bill or AB 1241.

Under the MLMA, the California Fish and Game Commission must adopt a fishery management plan for the nearshore finfish fishery, which spans the state's 1,100 miles of coastline. This plan is slated for adoption in August 2002. It aims to secure the fullest possible range of present and long-term economic, social, and ecological benefits, while maintaining the nearshore fishery's rich biological diversity (see article on page 8).

Accomplishing the MLMA mandate requires the Department of Fish and

Game (DFG) to take a new approach to managing the state's nearshore species and all marine life managed by the state.

Ocean Fishing:

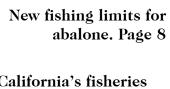
In addition to the development of the nearshore plan, the MLMA authorized the DFG and the Fish and Game Commission to develop a fishery management plan for the white seabass fishery.

White seabass are making a comeback in California waters from low population numbers only a few decades ago (see article on page 10). Today's recovery efforts for white seabass provide for moderate harvests while protecting young and spawning adults through season, size, bag, and gear provisions.

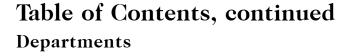
Despite some tightened restrictions, opportunities abound for recreational anglers. Even novice anglers can sample the sport with a minimal investment, by booking a fishing trip on one of the many privately owned and operated "party boats" (see page 4 article). Boat operators are extremely knowledgeable about fishing regulations, species identification and, of course, locating the good fishing spots.

DFG Director Robert C. Hight has addressed public concerns about the state's complicated fishing regulations by ordering the creation of easier-to-read fishing regulations. A "pull-out" summary of nearshore ocean fishing regulations begins on page 14 of this issue; summaries are also available on the DFG Web site at www.dfg.ca.gov/mrd/ index.html.

The DFG's overriding goal is to ensure the sustainable use and restoration of all living marine resources while recognizing the importance of recreational and commercial fishing industries to the people of California.







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"Don't touch that fish!" Those strong words

from a captain, deckhand, or other experienced angler are intended to stop someone in mid-motion before that unfortunate person gets poked by the spines of a sculpin and suffers any number of ill effects, including: swelling, nausea, pain, and occasionally a severe allergic reaction from the strong toxins left in the wound. This fish needs special handling, as its of-

ficial name, Calif o r n i a scorpionfish, would indicate. The reward, however, is worth the effort. Sculpin put up a pretty good fight, provide delicious fillets of surprisingly white meat, and are abundant enough numbers to keep even inexperienced kids happily fishing.

Sculpin are fun to catch because they are found in shallow structure zones where light tackle can be used to accentuate the fight of this relatively small

gamefish. Sculpin must be 10 inches long to be taken legally, and a one-pound fish is an average-sized catch.

Light tackle can be either spinning gear or light conventional rigs. Recommended line sizes are eight to 20 pounds. Anything lighter will suffer from abrasion against the ocean bottom structures these fish often hold tight to, and anything heavier will cause a loss of sensitivity and scare off line-shy fish when the water is very clear. Sculpin fishing is great for novice anglers because light tackle is easy to work with and the fish often bite willingly.

Sculpin hot spots are characterized by rocky reefs, ledges and undercuts, or an artificial structure, in water ranging from 20 to 120 feet deep. Some of the best spots are in the middle of that range—say 40 to 80 feet. Good sculpin action is often found by folks fishing the various small structure spots along California's mainland coast and around offshore islands. The beauty of sculpin fishing is that it isn't necessary to go far from a harbor or a pier to find good action.

These fish tend to hunker down tight to structures, and it is important to keep this in mind when present-

ing a bait. One productive method is to anchor a boat so that the current will take chum and hook baits right into the structure. A chumline helps to concentrate the fish and put them in a feeding mode. Chunks of anchovy, sardine, squid and mussels all make good chum. There are usually some weaker baits in the live bait tank which don't survive long. Take the dead ones out and cut them into chunks about an inch long. Cut

whole squid into rings about half an inch wide. Break up some mussels taken from pier pilings or rocks. Toss a couple of chunks of chum every 20 seconds so-just or enough to give the appearance of a steady stream of food flowing with the current to the waiting fish. This causes them to gather into the chumline and grab morsels as they float within sight.

Those same chunks also make good bait. Put your hook in one and drop it back



California scorpionfish. Photo © Ken Howard.

into the current, just like another piece of chum. When a pickup is detected, wait a moment before setting the hook to give the fish time to take the bait all the way into its mouth. Then set the hook and reel in at the same time so there isn't even an inch of slack in the line after the hook is set. Pull the fish quickly up away from the structure so that it doesn't dive under something and cut the line. Once the fish is a few feet away from the bottom, it's fun to bring it in slowly and enjoy the fight. It's surprising how hard a sculpin can tug on the line.

Once that fish comes up near the boat, it's important to handle the fish with care to avoid those dangerous spines. Never reel the fish all the way up to near the tip of the rod and then swing it aboard the boat. Always stop reeling when there are several feet of line between the tip of the rod and the fish, then lift the fish aboard by holding the line above the fish. Also avoid the spines when filleting the fish, and be sure to leave a one-inch skin patch for identification purposes. What's left will be delicate and sumptuous fillets.

David Bacon is a freelance writer and charter fishing boat owner.

## Get Hooked on Ocean Fishing Aboard A "Party Boat" By Chamois L. Andersen



Angler with barred sand bass. Photo by Paul Gregory.

alifornia is known to have some of the best fishing spots in the world. The trick is to know where the fish are—and the best way to do this is with the pros.

Fun and adventure are a package deal aboard one of the hundreds of privately owned charter fishing boats that dot California's coastline. During a full- or halfday excursion on one of these "party boats," as they're called, experienced fishing guides cater to all types of anglers.

One of those, located in the heart of Morro Bay, is *Virg's Landing*, a family-owned business since 1954. It operates six vessels—all ferrying passengers to and from the hottest fishing spots off the central coast.

Fishing with the experts is a great way to learn about the ocean, its underwater inhabitants, and how to reel in such tasty critters as blue rockfish, gopher rockfish, halibut, and albacore. And anglers who sign up with *Virg's Landing* will have a unique experience among fish adventures. Host Darby Neil and his experienced crew have been fishing here for decades and know the "secret" fishing spots of the central coast, which is considered the world's largest fish trap.

Beginner's luck is nearly a given with this party boat operation. And as one of Neil's captains says, "You don't need luck to catch fish—only local knowledge."

During a recent fishing trip in December, just as Captain Billy steered his boat the *Pathfinder* vessel out of Morro Bay's harbor, he welcomed his guests onboard, announced the procedures—and added a few words of wisdom. "Today is your day to have fun fishing, folks," he said. "You can leave the regulations to us and just have fun."

As the skipper steered the boat out of the harbor and into the breakwater, just past Morro Rock, a small volcanic peak and wildlife preserve, the crashing waves of the Pacific surrounded the vessel. This is the time when guests will retreat to the upper deck for some excellent wildlife viewing or opt to stay below to ready their gear. For all day trips, it takes about an hour to travel to the fishing hot spots.

## "Beginner's luck is nearly a given with this party boat operation."

While gliding effortlessly through the swells, anglers will notice small patches of kelp where sea otters are often spotted floating on their backs feeding on abalone and other shellfish. Seals, porpoises, and whales abound in these ocean waters. Up above, pelicans, gulls and cormorants fly overhead, adding to the thrill of an ocean adventure.

Plying through the indigo-blue waters, Captain Billy is always on watch for potential fishing action. Using a variety of techniques to locate fish for his guests, the captain relies heavily on a five-inch LED screen or what is commonly referred to as a fish finder or bottom sonar that shows the depths and density of fish found beneath the surface. Checking the direction of the wind and which way the tide is running are also helpful in finding fish. But one of the best clues is what he sees on top of the water. Birds can be a great indicator that baitfish are in an area. And with thousands of these tiny fish in a feeding frenzy, it's likely some unknown predatory fish are beneath them.

Wheeling birds screaming and diving after the baitfish close to the surface is quite a sight. For Captain Billy, it means a great fishing spot for his paying patrons.

As he approaches the flurry of activity, the captain also views his monitor for drop-offs in the ocean shelf. "I like to set up a drift line just over the weeds," he said. Kelp forests are ideal underwater habitats for rockfish, which belong to the Scorpaenidae family and contain more species than any other family of fishes found in the Eastern Pacific. More than 50 species live

## "There's nothing like the rush of hooking a fish and seeing the rod bend ..."

in California waters. Most of these species are fairly sedentary and frequently feed on plankton and tiny invertebrates found in rich kelp beds. Captain Billy points out to his guests that by steering the boat just along the edge of the kelp bed, just where it drops off to the sandy bottom, the density of rockfish as well as numerous other species is often greater in this transition zone.

As soon as the captain sets up to drift along this area, he calls out for anglers to go starboard and prepare their lines to "drop 'em"—and the fishing extravaganza begins.

Many anglers take advantage of renting a saltwater rod from *Virg's* pro shop. These stout fishing poles are top-of-the-line and user friendly. But not to worry, several deck hands are available to assist beginners with rigging up their tackle and providing lessons on how to properly manage an ocean fishing pole, which is quite different than what is involved with freshwater fishing.

Captain Billy will often call out specific instructions for anglers to position their lines at a certain depth, increasing their chances of catching fish. "Drop them to the bottom and give them 10 turns up," he says.

Sure enough, anglers who use his advice inevitably begin reeling in colorful China and copper rockfish, kelp greenling, and other species. The excitement is



Fishing on the Nautilus. Photo by Paul Gregory.

#### All Aboard For Fishing And Fun

Party boat trips are surprisingly affordable, starting at about \$25 per person for a half-day trip, and about \$40 for a full day. Equipment rental runs an additional \$10-\$15. One-day fishing licenses (if you don't already have an annual license) can be purchased on the spot. Full food and beverage service is available aboard most boats. Many charter services also offer specialty trips, such as moonlight excursions, overnight trips, and complete boat charters for groups. Prices vary accordingly.

Although reputable party boat operators will make sure their clients are in compliance with fishing regulations, be aware that the ultimate responsibility rests with the individual angler.

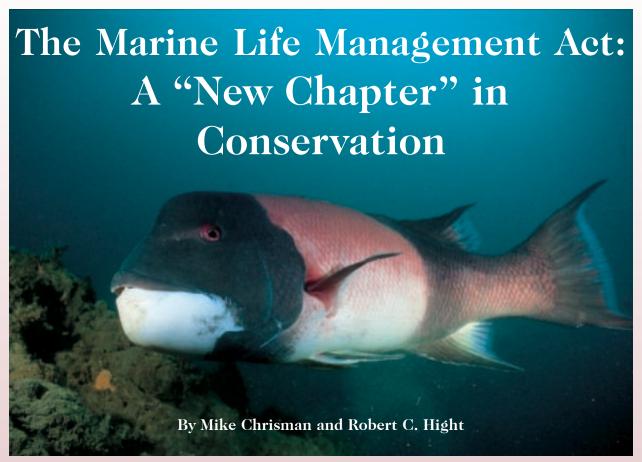
To find a party boat near you, check the yellow pages under "fishing parties." For a list of all "party boat" operators registered with the California Department of Fish and Game, call the DFG's License and Revenue Branch at (916) 225-2234.

addicting. "All right, there they are folks," the Captain says, as he checks that everyone has a potato sacktype bag close by to bag their catch. "It's a 10-fish limit."

There's nothing like the rush of hooking a fish and seeing the rod bend against the resistance offered by the thick-lipped fish digging its way through the waters, requiring anglers to lurch their arms forward and bury the rod's butt into their midsection. For many beginners, it feels as though they've hooked the bottom (often 100 feet deep), but the heavy surge on the other end of the line tells the angler otherwise. Once the fish is hoisted out of the water and over the stern, the deck hands are quick to assist with unhooking the fish and checking that it's a species that can be possessed. If it's not a legal species, the hook is carefully removed and the fish is released back into the water.

After several hours of following fish and fishing, Virg's staff will offer to fillet each angler's eatch for easy preparation for that night's dinner. With fishing this easy, it's no wonder why avid anglers and beginners alike come out in hordes to enjoy a party boat fishing trip.

Chamois L. Andersen is an information officer in the DFG's Conservation Education office.



Male sheephead. Photo © Ken Howard.

he passage of the Marine Life Management Act (MLMA) in 1998 opened a new chapter in the conservation of California's marine wildlife and the management of our marine fisheries. The law not only gave the DFG and the California Fish and Game Commission greater responsibility for marine fisheries, it also called for greater efforts to involve fishermen, scientists, and interested citizens in developing management measures for our fisheries. The DFG and Commission are committed to fulfilling this mandate.

The MLMA requires all of us to adopt new approaches to the formidable task of conserving California's marine life and fostering healthy fisheries. For instance, the MLMA places a high priority on using the best available scientific information in managing our fisheries.

There will be times when meeting this challenge will be particularly difficult because of the sacrifices that fishermen and others may have to make in order to secure a long-term future. But, if we fail this challenge and abandon sound science in order to avoid difficult sacrifices, we will all be much poorer in the end.

The art of fisheries management is not simply about science, however. Fisheries management requires managing ourselves. After all, we can do little to change the influence of climate or ocean currents on wildlife. But by controlling our own activities, from fishing to coastal development and pollution, we can avoid adding more strain on wildlife populations. While other laws aim to reduce the burden from coastal development and pollution, the MLMA aims at ensuring that fishing respects the limits of wild

populations. Just as fishing is a human activity, so must fisheries management concern itself with people.

Under the MLMA, people are not simply to be controlled or manipulated, but are to be involved in determining how our fisheries can be sustainable. This requires expanding traditional government approaches to public involvement and opening up the decision-making process so that the rationale for decisions is clear once decisions are made. This challenge is as formidable as relying upon the best available science. In many ways, the success of the MLMA hinges on meeting this challenge.

Mike Chrisman is president of the California Fish and Game Commission; Robert C. Hight is director of the California Department of Fish and Game.

Nearshore Managed Fishes



Calico Rockfish

Spring 2002

Grass Rockfish Treefish

Tracks 9

# White Seabass: Managing A Comeback

by Steve Crooke and Mary Larson

hite seabass, a large and highly prized fish found in waters off the coast of California and Mexico, is the largest member of the croaker family. Individuals can weigh more than 90 pounds and exceed five feet in length, but most seabass caught today are between 20 and 45 pounds.

Sport and commercial anglers have pursued white seabass since the early 1900s, but populations began declining in the 1960s. Regulations enacted in 1931 to protect white seabass established the minimum size limit of 28 inches. The regulations were amended over the years but populations continued to decline throughout the 1980s.

White seabass have made a comeback since then, as evidenced by an increase in recreational landings on commercial passenger fishing vessels. In 1990, 2,563 white seabass were landed; by the end of the decade 17,498 fish were landed—a sevenfold increase. In addition, the average weight of fish landed by anglers on commercial passenger fishing vessels increased from 8.4 pounds to 18.5 pounds.

Cooperation has been the foundation of the white seabass comeback, with conservation efforts augmented by volunteers from angler groups and the public.

Conservation efforts started in 1984

with the Ocean Resources Enhancement and Hatchery Program, known as "OREHP," as a way to determine if white seabass could be enhanced through artificial propagation. By 1990, researchers and volunteers had learned how to capture fish and keep them healthy in captivity. They also learned how to spawn adults and raise small seabass, eventually leading to the construction of a hatchery that today produces more than 100,000 fish annually and will eventually produce 400,000 fish.

In 2000, more than 85,000 juvenile fish were released into the wild from "growing-out" facilities—rearing pens in the ocean where juve-



niles grow from three to nine inches. Hatchery production in 2001 should reach 250,000 fish, with 200,000 of them expected to survive to release size.

Before release, selected fish are tagged with a small coded wire tag placed in the cheek. Anglers assist the DFG by turning in fish heads to be checked for tags. To

date, seven legal size (28 inches) white seabass have been returned to DFG, having survived between three and seven years in the wild. The data from the tags helps DFG researchers understand movements and harvest of the white seabass. The OREHP has offered a unique opportunity for organized angler groups, the public, and DFG to interact cooperatively.

United Anglers of Southern California and the Sportfishing Association of California are working with other sport groups to advise and assist the DFG. They were instrumental in securing funds for building the California Marine Hatchery Institute located at Carlsbad. The Hubbs-Sea World Research Institute, the current hatchery operator, also played an important role by securing donations for part of the building and equipment. Local angling groups contribute by building and staffing 13 volunteer grow-out facilities located along the coast between



San Diego and Santa Barbara. Volunteers have contributed more than 40,000 hours working on the grow-out facilities, making the program the success it is today.

Adding to the conservation effort, the California Legislature adopted the Marine Life Management Act of 1999 (see article on page 8), providing some much-needed clarification of who has the authority to manage the white seabass fishery. The MLMA directs the Fish and Game Commission to manage both the recreational and commercial white seabass fisheries using the best available science when making decisions. In addition, it requires that the Commission and the DFG look to the pubic for insights on management approaches and help with conservation efforts.

The direction provided by the Legislature makes it possible to finally implement the White Seabass Fishery Management Plan, which was adopted by the Commission in 1996 but has languished due to disagreement over management authority. The White Seabass Fishery Management Plan calls for data collection, analysis, and scientific review by the DFG's white seabass management team and an external scientific and constituent advisory panel.

DFG staff, along with other scientists, will collect information on the possible effects of hooking mortality on white seabass, as well as look into the effects of fishing gear on other species including invertebrates, marine mammals, sea birds, and turtles. Social and economic data will also be gathered, all of which will help develop a clear picture of the importance of white seabass to the people of California. With a continued spirit of cooperation, the white seabass fishery the become a tremendous success.

Steve Crooke is a senior marine biologist who coordinates the activities of the Ocean Resources Enhancement and Hatchery Program. Mary Larson is a marine biologist who was instrumental in the development of the White Seabass Fisheries Management Plan.



Photo, top, © Marc Conlin/Scapics.com Photo, far left, © Terry Maas. Left: Volunteer pen rearing facility. Photo © Hubbs-Sea World Research Institute.

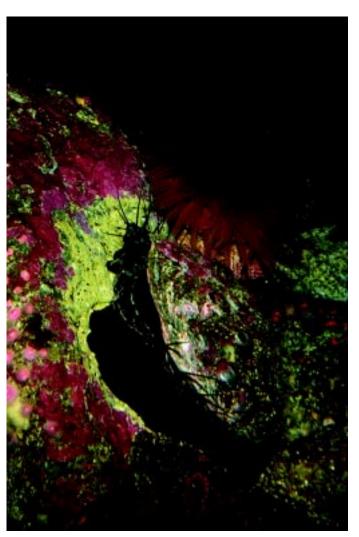
# Abalone Sport Take Reduced

iting evidence that without a take limit reduction the current abalone fishery may not be sustainable for future generations to enjoy, the California Fish and Game Commission approved new sportfishing regulations that will reduce recreational bag limits on abalone to three per day, 24 per year.

The decision came after hearing public comments at Commission meetings in San Diego, Redding and Long Beach. The new bag limits will take effect during the 2002-2003 abalone sport season, which runs each year from April 1 to June 30, and then from Aug. 1 to Nov. 30, only in ocean waters north of San Francisco Bay. North coast red abalone can only be taken by sport divers for personal use. The previous bag limit was four per day, 100 per year.

Though current abalone stocks along the north coast still appear viable, the DFG's abalone team recommended the limits should be lowered for the following reasons:

- Evidence of poor recruitment. There are currently reduced levels of the one-to-six-year-old abalone, which were abundant 14 years ago, to replace those currently being fished. Abalone grow very slowly—about 11 years to reach the sport legal size of seven inches in the shell.
- Increased fishing pressure. Overall abalone fishing has increased about 27 percent since southern waters were closed in 1997.
- Evidence of localized depletion. High use areas in Mendocino and Sonoma counties such as Moat Creek, Salt Point, and Van Damme show evidence of being depleted. Abalone divers have had to travel farther north to get abalone than they did between 1989 and 1994.
- Increased poaching. As the black market value of abalone increases, so has poaching. Despite heightened efforts by DFG's Special Operations Unit, sophisticated groups of divers, wholesalers, buyers and delivery transporters continue to operate throughout the Bay area and north coast.
- Loss of deep water refuge populations. Deep water populations that, in the past acted as a refuge from free divers, have declined since 1992. Reasons include increased poaching, El Niño-related loss of food, and competition with a strong year class of deep water sea urchin.



Red abalone. Photo by Gerald and Buff Corsi, California Academy of Sciences.

"This was a big step. We requested that the Commission take a proactive approach to ensure abalone stocks remain sustainable for the future," said Senior Marine Biologist Kon Karpov, DFG's abalone team leader. "While it's true that on the surface north coast abalone seems to be plentiful, something needed to be done to look out for the long-term prospects of the fishery. Our Cadillac looks like it's in mint condition, but the tank is running low and we have a long way to go to the next fill-up. When conditions improve, future generations will be thanking us that there is a bounty left to share."

## **DFG** Announces

# Tracks Subscribers: We Need To Hear From You!

Our mailing list is growing... and that's a good thing. But we want to make sure we're only sending *Tracks* to those who want it.

If you more than a year ago, and you'd like to remain on our mailing list, we need to hear from you before April 1, 2002 to avoid an interruption in your subscription. Our next issue of Tracks, the Summer 2002 upland game issue, will be mailed only to those we hear from. This will allow us to keep our postage costs down while continuing to provide our readers with a high-quality publication. (Those who requested Tracks within the

last year will not be removed from the mailing list.)

To remain on the mailing list, simply send a post card or an email to:

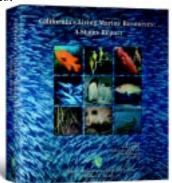
DFG Tracks Renewal 1416 Ninth Street #1240 Sacramento, CA 95814 or: pmontalv@dfg.ca.gov

Be sure to include your mailing address. As always, the subscription is free. If you don't respond by the March 1, 2002, deadline, don't worry; you can rejoin our mailing list at any time.

# The Definitive Guide to California's Marine Fisheries is Here

by Chamois L. Andersen

A new 592-page book entitled California's Living Marine Resources: A Status Report, published by the DFG in collaboration with the University of California's Sea Grant Program, provides in-depth scientific information on the current state of more than 150 marine species. It also examines many aspects of California's commercial fishing industry as well as the status of the state's recreational fisheries.



The report includes the writings of more than 125 leading marine scientists affiliated with well-known natural resource organizations, including scientists from DFG, University of California (UC) and California State University, the Monterey Bay Area Research Institute, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, and numerous private organizations.

The report can be purchased for \$25 (plus tax and shipping) from the Agriculture and Natural Resources Communication Services, University of California, 6701 San Pablo Avenue, Oakland, CA 94608;

Tel: 800-994-8849; Web site: www.anrcatalog.ucdavis.edu.

To download a free copy of the report or to print individual chapters of species, logon to DFG's Web site at www.dfg.ca.gov/mrd.

## Striped Bass Stamp Renewed For Two Years

Under legislation that took effect on Jan.1, 2002, the DFG will continue to sell Striped Bass Stamp for an additional two years. The extension, which runs through Jan. 1, 2004, provides continued funding for restoration efforts for this recovering sport species.

The price of Striped Bass Stamps remains the same at \$3.70 from authorized license agents and \$3.50 from most DFG offices.

Authorization for the stamp was due to expire on Jan. 1, 2002. Sales of Striped Bass Stamps generate about \$1 million annually which has historically supported striped bass monitoring and research. enhanced law enforcement, and the rearing and stocking of juvenile striped bass in the estuary. In recent years stocked striped bass have made up 2 percent to 6 percent of the adult population in the San Francisco Bay-Delta region.

Projects funded from stamp purchases and other sources along with improved environmental conditions in the San Francisco Bay-Delta region have increased the population of adult striped bass from about 600,000 in 1994 to nearly two million in 2000.

## Summary of Rockfish, Lingcod and Nearshore Species Sportfishing Regulations

Species	Time Period	Depth Limit	Daily Bag Limit	Size Limit
Shelf, slope and nearshore rockfish	Open all year	No depth restrictions	10 in combination with all other shelf, slope and nearshore rock- fishes, including yelloweye, canary, and bocaccio (see indi- vidual species restrictions)	
Cowcod	No take allowe	ed	0	
Yelloweye	Open all year	No depth restrictions	1 per person; no more than 2 per vessel	
Canary	Open all year	No depth restrictions	1 per person	
Bocaccio	Open all year	No depth restrictions	2 per person	10 inches total length
Lingcod	Open all year	No depth restrictions	2 per person	24 inches total length; 16 inch fillet length
Cabezon	Open all year	No depth restrictions	10 per person	15 inches total length
Greenlings	Open all year	No depth restrictions	10 rock greenling; 10 kelp greenling	12 inches total length
Sheephead	Open all year	No depth restrictions	5 per person	12 inches total length
Ocean Whitefish	Open all year	No depth restrictions	10 per person	
California Scorpionfish	Open all year	No depth restrictions	10 per person	10 inches total length

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# Central Area

## Summary of Rockfish, Lingcod and Nearshore Species Sportfishing Regulations

Note: Red text indicates species and time periods for which depth constraints apply

Species	Time Period	Depth Limit	Daily Bag Limit	Size Limit
Shelf and Slope Rockfish (including vermilion, widow, chilipepper, starry, greenspotted, greenstriped, flag, squarespot, yellowtail, tiger, etc. and all other rockfish not defined as 'nearshore' in Section 1.90 of the California sport fishing regulations)	Open Jan/Feb & July/August  Incidental take allowed in March/April and Sept/Oct	No depth restrictions  May be taken only in depths less than 20 fathoms (120 feet)	10 in combination with all other shelf, slope and nearshore rockfishes, including yelloweye, canary, and bocaccio (see individual species restrictions)  2 per person, not to include bocaccio, canary, yelloweye, and cowcod	bocaccio— 10-inch total length
Cowcod	No take allowed		0	
Yelloweye	Open only Jan/Feb and July/August	No depth restrictions	1 per person; no more than 2 per vessel	
Canary	Open only Jan/Feb and July/August	No depth restrictions	1 per person	
Bocaccio	Open only Jan/Feb and July/August	No depth restrictions	2 per person	10 inches total length
Lingcod	Open Jan/Feb & July/August	No depth restrictions	2 per person	24 inches total length
	Open May/Jun and Sept/Oct	May be taken only in depths less than 20 fathoms (120 feet)	2 per person	24 inches total length; 16 inch fillet length
Nearshore Rockfish (including black, black-and-yellow, blue, brown, calico, China, copper, gopher, grass, kelp, olive, quillback and treefish, as defined in Section 1.9 of the California sport fishing regulations)		No depth restrictions	10 in combination with all other shelf, slope and nearshore rockfishes, including yelloweye, canary, and bocaccio (see individual species restric- tions)	
,	Open May/Jun and Sept/Oct	May be taken only in depths less than 20 fathoms (120 feet)	10 in combination with all other shelf, slope and nearshore rockfishes, including yelloweye, canary, and bocaccio (see individual species restric- tions)	
Cabezon	Open all year	No depth restrictions	10 per person	15 inches total length
Greenlings	Open all year	No depth restrictions	10 rock greenling; 10 kelp greenling	12 inches total length

Summary continued

Species	Time Period	Depth Limit	Daily Bag Limit	Size Limit
Sheephead	Open all year	No depth restrictions	5 per person	12 inches total length
Ocean Whitefish	Open all year	No depth restrictions	10 per person	
California Scorpionfish	Open Jan/Feb and July/August	No depth restrictions	10 per person	10 inches total length
	Open May/Jun and Sept/Oct	May be taken only in depths less than 20 fathoms (120 feet)	10 per person	10 inches total length
Shelf, Slope and Nearshore Rockfish	Open March through October	No depth restrictions	10 in combination with all other shelf, slope and nearshore rockfishes, including yelloweye, canary, and bocaccio (see individual species restrictions)	
Cowcod	No take allowed		0	
Yelloweye	Open March through October	No depth restrictions	1 per person; no more than 2 per vessel	
Canary	Open March through October	No depth restrictions	1 per person	
Bocaccio	Open March through October	No depth restrictions	2 per person	10 inches total length
Lingcod	Open March through October	No depth restrictions	2 per person	24 inches total length; 16 inch fillet length
Cabezon	Open all year	No depth restrictions	10 per person	15 inches total length
Greenlings	Open all year	No depth restrictions	10 rock greenling; 10 kelp greenling	12 inches total length
Sheephead	Open all year	No depth restrictions	5 per person	12 inches total length
Ocean Whitefish	Open March through October	No depth restrictions	10 per person	
	Jan/Feb and Nov/Dec	May be taken only in depths less than 20 fathoms (120 ft)	10 per person	
California Scorpionfish	Open March through October	No depth restrictions	10 per person	10 inches total length

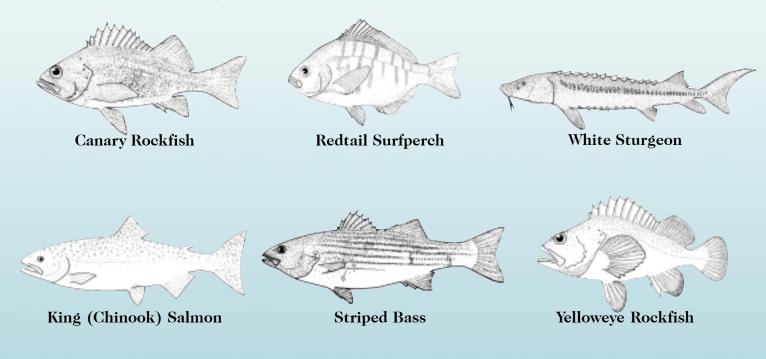
Cowcod Conservation Area: Within the Southern Area, rockfish, lingcod, sculpin, ocean whitefish, cabezon, sheephead, or greenlings may NOT be taken or possessed while fishing in waters 20 fathoms or greater in depth within the Cowcod Conservation Area.

# California Inland Sport Fishing Districts



# Important Saltwater Game Fish

## Northern and Central California

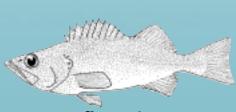


Illustrations by D. Miller and R. Lea

## Statewide



**Barred Surfperch** 



Bocaccio



California Halibut



Chilipepper

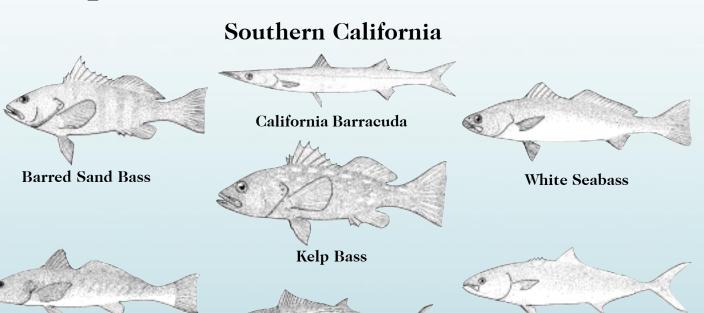


Leopard Shark



Lingcod

# Important Saltwater Game Fish

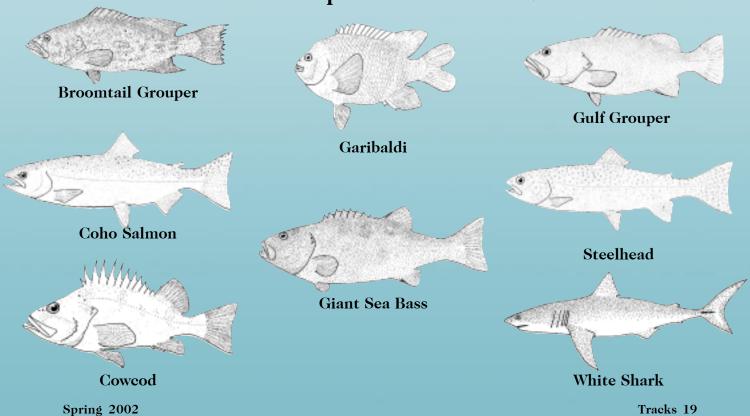


Yellowtail

## Protected Species-Release Alive

Pacific Bonito

California Corbina



# DFG Plans New Automated License Data System By 2003

and planning for an automated licensing data system, the DFG now has the necessary resources and approvals to develop and implement the system. Many of our license agents and customers have been hearing about the DFG's plans for automating license sales throughout the years through letters, memos and newsletters, and are looking forward to the change from the current manual system.

For many years the public has requested a streamlined, more efficient and simpler licensing system. Hunters and anglers want to be able to go to one location and purchase all sport fishing and hunting licenses quickly and easily. License agents want an easier way to sell and account for licenses. The automated system will benefit both license buyers and license agents in several ways:

• license purchases will be faster and easier;

- all sport fishing and hunting licenses and related items will be available through license agents, including those that were previously only available from a DFG office (bear and deer tags and drawing entries are examples);
- license agents will never run out of inventory;
- license sales will be available around the clock via telephone or the Internet;
- the license sales and accounting process will be quicker by eliminating license inventory and streamlining the sales reporting requirements for agents;
- information on license sales will be instant and collection of license revenue will be expedited.

Here's how the system will work: the customer will provide a driver's license, DMV identification card or prior year's automated license. The sales clerk will swipe the customer's driver's license through the card swipe on the electronic "point of sale" terminal or scan the barcode on the customer's previously issued automated license. The clerk will select the licenses and privileges requested by the customer on the point of sale terminal. Within seconds the license will print with the licensee's personal information and privileges purchased.

Hunting and sport fishing licenses issued by the Automated License Data System (ALDS) will be smaller than the previously issued licenses. The ALDS licenses will be slightly larger than a credit card when folded in half (about 3-by-4 inches). Customers making purchases in person will be issued their personalized licenses on the spot. Those making purchases by telephone or Internet may have the option to print a temporary license from home or be issued an authorization number for use until they receive their license by mail.

The DFG plans to purchase the state of Michigan's automated licensing system and contract with Electronic Data Systems (EDS) to modify the system to meet California's needs. The DFG is in the development stage and expects to pilot the ALDS in August 2002, with statewide implementation expected by the end of December 2002. The DFG does not anticipate any license fee increase as a result of the ALDS.

For more information, visit the DFG Web site at: www.dfg.ca.gov/licensing/alds/alds.html.

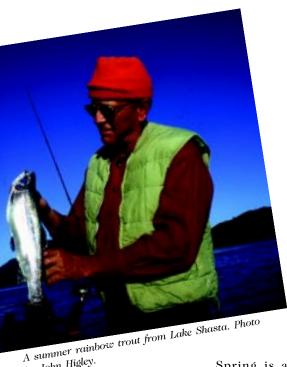


Californians will be able to spend more time fishing and less time buying licenses under the DFG's new Automated License Data System. Photo by Mike Cabrera.

# Finding Summer Trout in The "Thermocline" Layer

by John Higley

any anglers think that early spring is the best time to fish for trout in most of the state's foothill reservoirs and in some ways they're right. In the spring there can be huffy storms occasionally but usually the weather is tolerable and the fish are accessible in shallow water from a boat or the bank. Even better, on most lakes your only company will be other anglers like yourself.



by John Higley.

Spring is a wonderful time to be on the water chasing trout but some anglers have discovered that summer trout fishing, a different ball game to be sure, can be as good or better than spring. All you need to do is adjust to the circumstances surrounding summer fishing.

In the winter and spring, trout can be almost anywhere in the upper levels of temperate zone impoundments, because water temperature and oxygen content are favorable throughout. However, as summer comes on and the surface temperature rises, trout drop down in search of more favorable conditions. This is when deep reservoirs and lakes stratify into three different thermal zones the warm epilimnion, or surface laver; the cool hypolimnion, or bottom layer; and the thermocline, or middle laver which is described as the zone of rapidly changing temperatures.

It so happens that the thermocline layer is the most comfortable place for summer trout, both in terms of temperature and oxygen availability. What this means for anglers is that the trout are concentrated in one zone and once you locate the proper depth within that zone the fishing can be surprisingly good. The question is how do you find the right depth within the thermocline which, depending on the features of a particular lake, may begin 30 or 40 feet down and extend to 80 or 100 feet?

Sep Hendrickson, fishing tackle manufacturer and avid troller, says, "The ideal temperature for trout is 55 to 58 degrees so some anglers use special thermometers to seek that range. I just watch my fish finder. When I identify bait fish or other fish I suspect are trout, I note how far down they are and start trolling at that level."

Fishing guide Gary Miralles, who also produces a line of tackle for trolling, echoes Hendrickson so closely it's almost scary. "You can take water temperature readings all day," Miralles said, "but if you have a quality fish locator you'll see where the suspended trout are and that's all you need to know."

Fishing for summer trout is an open water affair that usually calls for trolling and the use of a downrigger. With such a device you can put whatever lure you're using in the right place time after time. And you can try some controlled variations just to spice things up a bit.

"With a downrigger you can actually stack lures and fish at different depths at the same time," advised Miralles. "Remember, in California you can fish lakes with two rods at once if you have the proper

As for lures, both Miralles and Hendrickson agree on the best colors for deep water fishing. Since reds and oranges go grav in deep water, recommended colors are green and purple. Hendrickson mentioned pearl white as another deep water producer that is too often overlooked.

Miralles likes his Cripplure and Hum Dinger wobblers and he wants them to match the hatch—in other words to be close to the current size of the bait fish the trout are eating. Hendrickson prefers his Sep's Pro Secret lures but he occasionally uses other types of lures that represent small bait fish.

If you like to fish for trout during the cooler months there's no reason why you can't adjust your tactics slightly and enjoy plenty of action during the summer months as well. What better place to be on a warm summer day than on the water with a fiesty trout on the end of the line?

John Higley is a freelance writer and avid angler.

# Hatchery-Supported Fish Species



#### Rainbow Trout

The black spots vary in size from pin points up to about 1/8 inch in diameter, but are rarely large or perfectly round. They are usually found on the upper half of the head, on the upper half of the body, and on the dorsal and caudal fins. Rainbow trout are extremely variable in coloration. Some may be quite silvery except on the back; they may have very few spots; and the red on the head and sides may be absent.



#### **Brown Trout**

The coloration of brown trout is quite variable; usually they are dark brown or olive brown on the back, shading to golden brown on the sides and white or yellow on the belly.

There are dark spots on the head, body, and dorsal fin that are relatively large and distinct. There are no wavy marking on the back or dorsal fin. There are red spots on the lower sides, each surrounded by a light halo. This is the only trout with both black and red spots on its body.

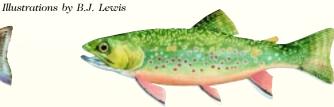


#### **Brook Trout**

The back and sides are usually dark olive green. Light spots on the sides are large and nearly round. On the back the light spots turn to wavy lines, which are very characteristic on the brook trout.

The dorsal fin has dark wavy lines rather than spots. There are usually red spots on the sides, but these may be indistinct. The ventral and anal fins usually have distinct white borders along the anterior margins.

Brook trout don't do well in California waters lying much below 4,000 feet, and are more common at elevations between 5,000 and 9,000 feet.



#### Golden Trout

The typical golden trout is a highly colored fish and distinctive shades of yellow and red on the lower sides and belly. The cheeks and operele often are red, as are the pectoral, ventral and anal fins. The dorsal and anal fins usually have distinct white tips, sometimes bordered with black. The spotting is distinctive, with relatively few round black spots well defined against the clear background.

Golden trout are present in a number of California streams and lakes of the Sierra Nevada from Alpine and El Dorado counties to the north to Inyo and Tulare counties to south, mostly at elevations over 8,000 feet.



#### Lake Trout

The background color of the body is usually dark gray, but varies from pale to almost black. The entire body except for the belly is covered with large pale spots. The dorsal and caudal fins are marked with dark wavy lines and spots. The caudal fin is deeply forked. The head is pointed and the body is relatively slender.

Self-sustaining populations of lake trout are present in Lake Tahoe, Fallen Leaf Lake, Stony Ridge Lake, and Donner Lake, all of which are in the Truckee River drainage.



#### Coastal Cutthroat Trout

The back is usually dark olive green. The sides are much lighter and the belly is silvery white. Usually a pair of red streaks, the cutthroat marks, are present on the membrane between the jawbones. The entire body and all the fins are usually spotted with large, distinct, black spots or irregular marks. However, the spotting does not extend to the lower sides and belly of all fish.

The coastal cutthroat is found in the lower courses of most coastal streams from the Eel River northward.



#### **Lahontan Cutthroat Trout**

The body is usually a dark, yellowish-olive color from back to belly. The side has a broad pinkish stripe. The sides of the head are often searlet. The entire body is covered with large, black spots. Cutthroat living in deep water may be silvery with narrow, elongated spots. There are two distinct red stripes on the membrane beneath the jaw.

In California the Lahontan cutthroat is a native of the Truckee, Walker, and Carson drainages.



#### Paiute Cutthroat Trout

The Paiute is a cutthroat trout which was separated a great many years ago from the Lahontan cutthroat living in the Carson River drainage below the falls. Through the centuries it developed a pattern of coloration which is very similar to that of golden trout. In fact, highly colored individuals could be mistaken for golden trout. The ventral surface of the Paiute cutthroat is usually a clear white, making a contrasting background for the orange-red cutthroat marks beneath the jaw.

The native habitat is restricted to upper Silver King Creek and its tributaries above Llewellyn Falls. Although Paiute cutthroat trout are not reared in DFG hatcheries, the DFG has transplanted some to other waters to insure the survival of the species, which is threatened by hybridization with planted rainbows.



#### **Kokanee Salmon**

The back is a dark blue and the sides are silvery. As the spawning season approaches, both male and female kokanee turn a deep red, and the lower jaw of the male develops a characteristic hook common to Pacific salmon.

Kokanee are not trout but belong to the same family as the trout. They are found in the open water areas of a lake, in the same cool waters preferred by trout.



Smallmouth bass photo by Robert Waldron.

## Catch and Release Tips

Follow these five points to release fish to survive for another day of fishing.

- 1. Never squeeze a fish, or lift a fish by the fishing line or the fish's gill covers.
- Support the body of trophy-sized fish to reduce stress. Underwater unhooking and release is preferred.
- 3. Fish with artificial lures to minimize deep hooking fish and to make unhooking easier and less stressful on the fish.
- 4. Remove only those hooks that you can see and back out easily. Clip the line as short as possible on deeply hooked fish.
- 5. Use barbless hooks, or flatten the barb with pliers.

## Important Fresh Water Game Fish



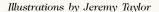
#### Sacramento Perch

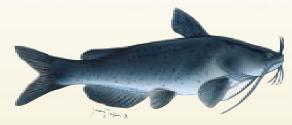
Twelve or 13 dorsal fin spines differentiate this species from all other members of the sunfish family in California, which have 10 or less. Coloration blackish above, with about seven vertical bars, irregular in form and position. This is not a true perch, but a sunfish.



Black Crappie

Silvery with irregular dark green or black mottling. Length of dorsal fin base about equal to distance from front of dorsal fin to eye. Seven or eight dorsal spines.





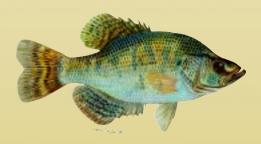
#### Channel Catfish

Bluish on back, whitish below and on sides. Most easily confused with blue and white catfish, but can be distinguished by one or more of the following features: small irregular spots on sides, which may be obscure or absent in large specimens; tail deeply forked, with pointed lobes; 24 to 29 rays in anal fin. Recognized also by its relatively narrow head when compared with the broad head of white catfish.



#### Black bullhead

Coloration similar to that of brown bullhead but usually not mottled. Fin membranes generally black. Pectoral spine weakly barbed on rear edge; offers little resistance when grasped by thumb and forefinger. Tail squarish; not deeply forked. Belly frequently brassy or golden.



#### White Crappie

Silvery white, with dark green or black mottling in the form of vertical bars on sides. These bars are often indistinct in adult fish. Length of dorsal fin base less than distance from front of dorsal fin to eye. Six dorsal spines.



Body silvery with about seven dark longitudinal stripes. Back olivaceous. The two dorsal fins are separate. Depth of body less than 1/3 standard length, in contrast to deeper bodied white bass. The soft rays in the second dorsal fin usually number 11 or 12. Two parallel patches of teeth occur on the base of the tongue in contrast to the single patch of the white bass.

## Important Fresh Water Game Fish



#### Largemouth Bass

Upper jaw extends past a vertical line drawn through rear margin of eye; dark, blotchy, longitudinal band on sides, less prominent in old individuals; dorsal fin deeply notched when compared to smallmouth bass.

Largemouth bass prefer warm waters, usually in excess of 65 degrees F. They become lethargic and lose their appetite when the water is colder than 50 degrees F, remaining in deep water in this torpid state for much of the winter. They provide extra challenge to the persistent bass angler during this period.



Smallmouth Bass

Dark vertical barring usually present on sides. In contrast with the largemouth bass, upper jaw does not extend to rear margin of eye and dorsal fin not deeply notched.

Smallmouth bass prefer lower temperatures (about 70 degrees F) and adapt to swifter currents than large-mouth. They do best in clear, boulder-strewn streams with large pools, and in clear lakes with scant vegetation and rocky shoal areas for spawning. Smallmouth are often considered to be better fighters than large-mouth, but the latter usually grow larger.



Spotted Bass

Upper jaw extends to rear margin of pupil. Blotchy lateral band with spots above it and linear streaks below. As in the smallmouth bass, dorsal fin not deeply notched.

Spotted bass inhabit the limnetic or open water portion of a lake more than largemouth or smallmouth. Spotted bass are normally slower growing than largemouth bass and do not get extremely large.



Bluegill

Dark spot at rear base of dorsal fin, vertical bars on sides, body very deep and compressed, mouth small, opercular lobes flexible, pectoral fins long and pointed.

Bluegill reach their greatest abundance in lakes and ponds with moderate plant growths. They are generally found in schools near some type of cover. This behavior often makes for fast sport fishing when they are located. Blugill feed on a wide variety of animal life. They grow best when water temperatures are between 60 degrees and 80 degrees F and generally are four to five inches long by the end of their third year.



Green Sunfish

Mouth relatively large for a sunfish. Body rather bass shaped; not as deep as bluegill or redear sunfish. Turquoise mottling, often in the form of bars, radiates backward from the snout and eye. Pectoral fins short and rounded.

Green sunfish are very adaptable and are able to colonize disturbed habitats more easily than many species. They tend to overpopulate and stunt, and even under good growing conditions seldom exceed seven inches.



Redear Sunfish

Opercular lobe stiff, with broad red or orange margin below and behind. Gill rakers short and stout. Pectoral fins long and pointed.

Redear prefer deeper waters of quiet, warm lakes, ponds, and sloughs, and dense vegetation. They can spawn several times a year beginning when water temperatures reach nearly 75 degrees F. They grow more rapidly than most other sunfishes and are not as prone to overpopulate and stunt as bluegill and green sunfish. Bluegill-redear sunfish hybrids are common in waters where they coexist.

# **Poachers**



# Steal...

The following stories are actual poaching cases reported by concerned citizens through the CalTIP program. CalTIP stand for "Californians Turn In Poachers and polluters." If you report a poaching incident you can remain anonymous and may be eligible for a cash reward. The CalTIP 24-hour hotline number is 1-888-DFG-CALTIP.

#### SoCal Poachers Arrested

On August 28, a witness reported to CalTIP that there were subjects on the Cabrillo Beach pier in Los Angeles County catching and keeping undersized halibut. The witness stated that one of the men was placing fish under a green towel.

Local Warden Mike Norris quickly responded to the beach and spoke with a second witness who gave the same account. The witness said that he had told the men to stop but they ignored him. Warden Norris put on a "cover up" shirt over his uniform and walked onto the pier to watch the suspects. Norris saw one man catch a small halibut and put it under a towel.

In the meantime, Warden Rod Buckler arrived in the vicinity. Norris asked Buckler, who was in full uniform, to walk toward the suspects. As Buckler came into view, one of the suspects ran to his ice chest, pulled out a plastic bag and moved toward the railing. At that point, Warden Norris took off his cover-up shirt and ordered the man to halt.

From the plastic bag, and under the towel, the wardens recovered four halibut, all shorter than the 22-inch

minimum size. Both men were cited. As they left the pier, Norris and Buckler noted a large, white sign at the pier entrance that clearly depicted a picture of a halibut with a "ruler" indicating the 22-inch size limit. The disposition is pending.

#### A Delta Warden's Work is Never Done

San Joaquin Delta Warden Lori Oldfather had her work cut out for her one weekend last October. It began with a report of a man taking overlimits of striped bass from a canal near the Central Valley town of Tracy.

Warden Oldfather drove to the area and saw a man take and keep a small striped bass. She then observed a second subject eatch a small bass and place it in a white plastic bucket. The warden drove to the south bank of the canal and contacted the pair. Neither had a fishing license. When Oldfather looked in the bucket, she observed a mass of fish. She counted out 108 striped bass, most about seven- to nine inches long. Had they been of legal size (18 inches), the possession

Photos, above and at left, document overlimits seized during poaching busts. DFG file photos.





# ...From All Of Us

by Lt. Liz Schwall

limit would have been two per person. Both men were cited for not having a license and for taking undersized stripers.

As Warden Oldfather was concluding her contact with the two men, she glanced down the canal and observed another group of people fishing. Looking through her binoculars, she saw two more men catching small striped bass and placing them in a white plastic bucket. Reaching the group, Oldfather once again asked to see licences. Like an "instant replay," neither had them. After counting the fish, Oldfather seized 23 "short" stripers and cited the poachers.

#### Some Guys Never Learn

The name Marc Sosnowski is known to the game wardens on the southern California coast. In 1999, wardens arrested Sosnowski for illegally taking 94 lobsters from the protected waters of the San Diego-La Jolla Ecological Reserve. Sosnowski appeared in court in 1999 and was fined \$800 for his misdeed.

Two years later, San Diego Warden Eric Kord was more than a little surprised when he received an anonymous tip that the poacher was allegedly back in business. Kord organized an investigation that eventually involved 15 game wardens including officers from the

DFG's Special Operations Unit (SOU). During one surveillance, SOU wardens watched Sosnowski enter the ocean with a pole spear (an illegal method of take for lobster), and then return to the beach. He then stashed his catch near the water while he changed back into his clothes at his car.

While the poacher was changing clothes, undercover Warden Adrian Foss hurried over to the hidden game bag and saw an estimated 100-120 lobsters in the bag that had been "tailed" (the tail is the only part retained). Foss noted that many of the lobsters were egg-bearing females. Foss slipped back off the beach and allowed Sosnowski to retrieve his illicit catch.

Warden Kord now activated the waiting team of wardens. Undercover officers videotaped the unsuspecting Sosnowski as he sold the lobster tails for profit. At the same time, warden divers donned wetsuits and took to the waters from which Sosnowski had emerged. Under the waves, the officers found the fresh carapaces (bodies) of 23 lobsters. Many of them had spear holes in them.

Next, a search warrant was served on Sosnowski's residence where an abundance of evidence was seized including thousands of dollars worth of SCUBA gear. During the investigation, it became evident that Sosnowski also was poaching abalone. The taking of abalone is prohibited in southern California.

Sosnowski was charged with the illegal taking of abalone and the illegal taking and sale of sport-caught lobsters. This time, Sosnowski got more than a "slap on the wrist." Justice prevailed on Nov. 14, 2001 when the judge fined the poacher \$15,000 and ordered him to serve six months in the county jail. For the next three years, Sosnowski must stay away from the ocean if he is in possession of any diving or fishing equipment. He is prohibited from obtaining a fishing license for three years. Sosnowski's SCUBA equipment was forfeited.

# Ask A Biologist

#### by Carrie Wilson

I recently caught a California halibut that was tagged with a Fish and Game tag and would like to know who I should turn it in to. Why was this fish tagged anyway?

A The DFG tagged California halibut from the 1960s to 1996. The purpose of the program was to identify movement patterns along the coast. Results so far indicate that halibut remain localized and move primarily parallel to the coast line, although a few fish did move several hundred miles.

When catching a tagged halibut, please jot down the following information:

- 1) length of the fish;
- 2) weight of the fish;
- 3) date caught;
- location caught (be as specific as possible. G.P.S. numbers would be great); and
- 5) any additional information you think may be important. If you eatch a sub-legal tagged fish, leave the tag on and record as much information as possible before releasing the fish.

Please then send the tag and this information to: Calif. Halibut Tagging Program

California Dept. Fish & Game 4665 Lampson Ave. Suite C

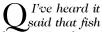
Los Alamitos CA 90720

Once all of this information is received, we'll get back to you with any information we may have on this fish, such as when and where the fish was originally tagged and its size at that time. In addition, we will also send you an official Fish and Game Marine Fish Tagging Program ball cap as our thanks for assisting in the California halibut tagging program.

I know it's illegal to take cowcod, but I recently took a trip where I saw several that had been caught and released only to die. How can one release these fish alive? Shouldn't a boat crew know how to do this?

A Since cowcod reside on deep rocky banks in depths of up to 1,200 feet (commonly 500-800 feet in Southern California), you cannot successfully release them. Fish brought up from such depths suffer irreparable damage to their gas bladders and are often blinded by the gas damage to the eyes.

We realize some cowcod will die so long as fishing is permitted, but take cannot be permitted or people will target them. Hopefully, a boat stationed over a spot that's producing cowcod will move to another spot to avoid having to throw back dead fish. While throwing them back dead may seem like a waste, the fish are still being utilized as part of the complicated marine food chain.



have a "sixth sense." What is meant by this?



Allength of your fish along its side? This is the lateral line and is actually a line of sensory lateral organs consisting of a series of pores containing pressure-sensitive receptors. This organ acts as a special "sixth sense" enabling the fish to sense movement and proximity of objects without actually touching or seeing them.

Why are so many of the deep water rockfishes red in color?

A Scientists believe this is a survival strategy that they have adapted to help them hide from predators. Red is one of the first colors to be filtered out of the light spectrum (below 100 feet), so without light at these deep depths, the fish appears to look black or a dull brown, and essentially blends into their surroundings like camouflage.

Where can I find records of all of the largest fish ever landed in California by sport anglers?

The DFG maintains a list of state records of the largest fish and invertebrates taken by sport anglers and divers in California and submitted to the DFG's angling records program. This list appears on the back of this publication, and is available online at: www.dfg.ca.gov/mrd/faqtrph3.html for marine species and www.dfg.ca.gov/fishing/fishrec.html for freshwater species. You may also want to refer to the International Game Fish Association (www.igfa.org), which maintains world angling records including those from California.

Carrie Wilson is a marine biologist with the DFG's Monterey office. She can be reached via email at: cwilson@dfg.ca.gov.

## Ask A Warden

by Lt. Liz Schwall

I just recently purchased a "second-rod" stamp. Where am I allowed to use it?

A You may now use two fishing lines in lakes and reservoirs only. Use of two rods is still prohibited in all rivers, streams, creeks, sloughs, and canals.

Persons fishing from public piers (as defined in section 1.88 of the CCR/Title 14) are not required to possess fishing licenses. If the person is fishing for, or in possession of, striped bass, do they need to have a striped bass stamp?

A No. When fishing from a public pier, no license, stamps or report cards are needed. However, all other rules pertaining to season, size and limits do apply.

I recently went fishing. I forgot my license but had my duplicate copy of my fishing license. Is that legal? Can I use it? Doesn't that prove I have my license?

Ano. It is not legal to use the fishing license receipt as the actual license document. The idea behind the receipt was to provide anglers with a simpler and more efficient way to replace lost or destroyed licenses. It was never intended to be used in lieu of an actual license. The law still says that anglers must have a valid license in possession while fishing.

My 14-year-old son and I free dive for abalone. My son does not need either a fishing license or an abalone stamp. I know that the abalone report card is used to monitor the total number of abalone taken each year by divers... does my son need to have an abalone report card?

A No. If you look at the lan-guage of the Fish and Game Code section, you will see that the persons who are exempt from purchasing a license and an abalone stamp are also not required to use an abalone report card.

I am having a hard time getting an answer about using bluegill for bait.

I was fishing in the Delta west of Stockton and noticed that some folks were using bluegill for bait. I thought it was illegal to do so. I was told by these people if you catch them there you could use them there. I would like to know if this is true.



I have also called several tackle shops and they tell me it is a gray area. But other tackle shops say it is OK to use bluegill. You see, I need official help.

A The answer to this question can be found in Section 4.20(d)(3) of the Fishing Regulations booklet. Here is part of what the section says:

- 4.20. Bait Fish Use in the Valley and South Central Districts. (amended 12/08/2000)
- d) In addition, except for trout and salmon, fin fish lawfully taken in the following waters by angling or with bait fish methods approved in Section 4.05 may be used only in the waters where taken:
- (1) Carquinez Strait and Suisun Bay and their tributaries and saltwater tributaries.
- (2) Sacramento River and tide-water of tributaries downstream from the Highway 32 bridge near Hamilton City, Feather River downstream from the Oroville Hatchery Fish Barrier Dam, Yuba River downstream from Daguerre Point Dam, and American River downstream from Nimbus Dam.
- (3) San Joaquin River and tide-water of tributaries downstream from Interstate 5 bridge.

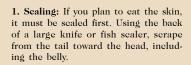
Basically, you can use legally caught fin fish (except for trout or salmon) for bait in the San Joaquin system west of the I-5 Bridge in Stockton (Port of Stockton).

Lt. Liz Schwall is the statewide coordinator of the CalTIP program. She can be reached via email at lschwall@dfg.ca.gov.

# Field Dressing

# Techniques By Chef Kirk Williams

# Cleaning and Cutting Salmon





2. Gutting: With a sharp knife, cut a slit from the vent to the gills. Make a cut just behind the head, and around the gill plates just through the spine. Pull the head toward the tail and remove the innards as one. Scrape out the red kidneys next to the spine with a spoon. Rinse well.



3. Cutting Steaks: Use a large knife to cut into steaks. If the backbone gives you trouble, rest the knife on the bone and strike the knife with the palm of your hand.



4. Filleting: Lay the fish on its side with the back facing toward you. Rest the knife on the top of the backbone while holding up the belly flap. Cut along the top of the backbone all the way through the tail. Be careful not to put too much downward pressure on the knife to prevent cutting through the backbone. Turn the fish over and repeat on the other side.



5. Removing the rib bones: Slide the knife behind the rib bones from the head to tail ends. Use care to keep the knife against the underside of the bones to prevent cutting loss of the meat.



6. Removing the Pin Bones: Run your fingers from the head end to the tail to expose the pin bones. Use a pair of needle-nose pliers or tweezers, pulling up and toward the head to remove the bones.



7. Skinning: While holding the tail end of the fillet and holding a large knife parallel to the cutting surface, run the knife between the flesh and skin. Hold the knife still with slight downward pressure while wiggling the skin back and forth. Cut the fillets on the bias to the desired portion size.

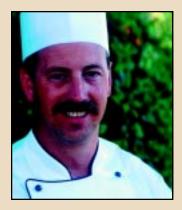




## The Final Reward by Chef Kirk Williams, CEC, CCE

## Smoking Salmon Hot and Cold

When preparing salmon for smoking, it must first be exposed to one of two pre-steps: either a dry cure or a marinade in the form of brine. Both dry cures and brines consist of coarse salt, sugar and aromatics (herbs and spices). The purpose of these preparations is to reduce the moisture content while replacing it with salt as a preservative. Salmon flesh is moderately coarse despite its moist flaking when cooked; so cold smoking is necessary if the fish is to be cut into thin slices without crumbling. However, hot smoking is much easier and requires less sophisticated equipment and time.



Chef Kirk Williams can be contacted via email. His address is: chefkirk@juno.com



#### **Dry Cured Smoked Salmon**

6 lbs. salmon fillet, skin on 3/4 oz. white peppercorns, crushed 12 oz. kosher salt 3/4 oz. granulated sugar

1/4 oz. curing salt, (optional, preserves color)

Fillet and bone the salmon. Scale and score the skin. Combine the spices and mix well. Rub into both sides of the salmon and "dry-salt" for 18-24 hours under refrigeration. Rinse in cold water to remove residual salt. Air dry with a fan 5-6 hours or until a thin skin develops. To cold smoke, hang salmon in a smoker at 80-85 degrees F over soaked alder or oak sawdust and green juniper branches for 36 hours. To hot smoke, hang the salmon in a smoker at 160-165 degrees F for 3-4 hours. Refrigerate.

#### **Brine Smoked Salmon**

6 lbs. salmon fillet, skin on
6 tbsp. kosher salt
2 ea. oranges, sliced
2 tbsp. granulated sugar
2 cups water
1 cup dry white wine
2 ea. lemons, sliced
2 ea. oranges, sliced
4/2 cup Dijon mustard
4/2 cup brown sugar
1 tbsp. cayenne pepper

Fillet and bone the salmon. Scale and score the skin. Combine the salt, sugar, water, wine, lemon and oranges. Bring to a boil and cool to room temperature. Pour over the fillets and brine under refrigeration for 6 hours. Drain the juice. Combine the mustard, brown sugar and cayenne. Rub over the flesh side of the salmon. To cold smoke, hang salmon in a smoker at 80-85 degrees F over soaked pecan or walnut sawdust for 36 hours. To hot smoke, hang the salmon in a smoker at 160-165 degrees F for 3-4 hours. Refrigerate.

#### **Barbeque Smoked Salmon**

By far, the easiest way to add smoke flavor to your salmon is to smoke it while cooking it on the barbeque. It does not require pre-preparation of a dry cure or brine and is intended to be eaten immediately after cooking. Simply soak the desired wood chips and place them in a disposable aluminum pan. Once the coals or gas grill are hot, place the chip-filled pan directly on the coals, lava rock or radiant shields, insert the cooking grate and cook as desired.

#### California Inland Water Angling Records

California Inland Water Angling Records					
SPECIES WEIGHT	LOCATION DATE	ANGLER			
Rainbow trout, anad.27 lb 4 or		Robert Halley			
Rainbow trout, res.23 lb 0 oz	Lake Natoma, Sacramento Co. 1/17/2000	Jeremy Brucklacher			
Golden trout 9 lb 8 oz	Virginia Lake, Fresno Co. 8/18/1952	O.A. Benefield			
Brown trout 26 lb 8 oz	Upper Twin Lake, Mono Co. 4/30/1987	Danny Stearman			
Cutthroat trout 31 lb 8 oz	Lake Tahoe, Placer/El Dorado Co. 1911	William Pomin			
Brook trout 9 lb 12 oz	Silver Lake, Mono Co. 9/9/1932	Texas Haynes			
Bull trout 9 lb 11 oz	McCloud Reservoir, Siskiyou Co. 5/1968	James Scott			
Lake trout 37 lb 6 oz	Lake Tahoe, Placer/El Dorado Co. 6/21/1974	Robert G. Aronsen			
Artic grayling 1 lb 12oz	Lobdell Lake, Mono Co. 8/27/1974	Don Acton, Jr.			
Mountain whitefish 2 lb 7 oz	Truckee River, Placer Co. 8/21/1999	John Roberts			
Kokanee salmon 4 lb 13 oz	Lake Tahoe, Placer/El Dorado Co. 8/1/1973	Dick Bournique			
Chinook salmon 88 lb	Sacramento River, Tehama Co. 11/21/1979	O.H. Lindberg			
Coho salmon 22 lb	Paper Mill Creek, Marin Co. 1/3/1959	Milton T. Hain			
Pink salmon 8 lb 11 oz	Sacramento River, Tehama Co. 9/22/2001	Mike Daily			
Largemouth bass 21 lb 12 oz		Michael Arujo			
Smallmouth bass 9 lb 1 oz	Clair Engle Lake, Trinity Co. 3/20/1976	Tim Brady			
Spotted bass 9 lb 9oz	Pine Flat Reservoir, Fresno Co 10/12/1996	Kirk Sakamoto			
Redeye bass NO RECORI					
White crappie 4 lb 8 oz	Clear Lake, Lake Co. 4/26/1971	Carol Carlton			
Black crappie 4 lb 1 oz	New Hogan Lake, Calaveras Co. 3/29/1975	Wilma Lee Honey			
Bluegill 3 lb 8 oz	Lower Otay Reservoir 7/10/1991	Davis Buckanon			
Pumpkinseed 1 lb	Mt. Meadows Reservoir, Lassen Co. 8/4/1996	Dave Smith			
Redear sunfish 5 lb 3 oz	Folsom South Canal, Sacto Co. 6/27/1994	Anthony White			
Sacramento perch 3 lb 10 oz	Crowley Lake, Mono Co. 5/22/1979	Jack Johnson			
Sunfish 1 lb 12 oz	Pond near Bella Vista, Shasta Co. 6/3/1978				
Yellow perch NO RECORI					
Channel catfish 52 lb 10 oz	Santa Ana River Lakes, Orange Co.7/12/1993				
White catfish 22 lb		James Robinson			
Blue catfish 101 lb	San Vicente Res. San Diego Co. 3/12/2000	Roger A. Rohrbouck			
Bullhead 4 lb 8 oz	Trinity Lake 10/7/1993	Garry Dittenbir			
Flathead catfish 60 lb	Colorado River (Palo Verde Lagoon) 3/7/1992				
Warmouth 12 oz	American River, Sacramento Co. 7/21/1982	Lester W. Falloon			
Striped bass 67 lb 8 oz	O'Neill Forebay, Merced Co. 5/7/1992	Hank Ferguson			
White bass 5 lb 5 oz	Ferguson Lake (Colorado River) 5/8/1972	Milton Mize			
Sturgeon 468 lb	San Pablo Bay 7/9/1983	Joey Pallotta			
American shad 7 lb 5 oz	Feather River, Butte Co. 5/9/1985	Craig Stillwell			
Orangemouth corvina 37 lb	Salton Sea, Imperial/Riverside Co.7/15/1988				
Sargo 4 lb 1 oz Carp 52 lb	Salton Sea, Imperial/Riverside Co. 1972	Mike Leonte			
r	Nacimiento Lake, San Luis Obispo Co.4/1968				
Tilapia 3 lb 8oz	Palo Verde Canal, Riverside Co. 11/27/2000	Carol A. Bellamy			

These records, as well as California diving records, can be found on the DFG Web site: www.dfg.ca.gov

## California Saltwater Angling Records

California Saltwater Angling Records					
SPECIES	WEIGHT	LOCATION	DATE	ANGLER	
Barracuda, California	$15~\mathrm{lb}~15~\mathrm{oz}$		8/24/1957	C. O. Taylor	
Bass, Giant Sea*		Anacapa Island	8/20/1968	James D. McAdams Jr.	
Bass, Barred Sand		Huntington Flats	8/29/1988	Robert Halal	
Bass, Kelp		San Clemente Islan		C. O. Taylor	
Bass, Spotted Sand		Newport Bay	10/1/1994	Matt Bergherm	
Bonito, Pacific Cabezon		Malibu Cove	7/30/1978 4/20/1958	Gino Piccolo Bruce Kuhn	
Corbina, California	6 lb 9 oz	Los Angeles Dana Point Harbor	5/23/1997	Scott Mathews	
Croaker, Spotfin		Playa del Rey	9/24/1951	Charles Dusart	
Croaker, Yellowfin		Santa Monica Beach		Fred Oakley	
Dolphinfish	66 lb 0 oz		9/9/1990	Kim Larson	
Eel, Monkeyfaced	3 lb 13 oz	Muir Beach	6/16/1998	Oliver Y. Bradley	
Flounder, Starry		San Simeon	8/29/1993	Steve Doshier	
Greenling, Kelp		San Simeon	7/23/1993	Ray Hardy	
Halibut, California		Santa Rosa Island	6/26/1999	Roger W. Borrell	
Jacksmelt	1 lb 8 oz			William J. Rogers	
Lingcod		Crescent City	7/12/1992	Carey Mitchell	
Mackerel, Jack Mackerel, Pacific (Chu	5 lb 8 oz	0	9/1/1988 11/5/1995	Joe Bairian Bob Tanji	
Marlin, Blue	692 lb 0 oz		8/18/1931	A. Hamann	
Marlin, Striped		Catalina Island	7/4/1985	Gary Jasper	
Opah	163 lb 0 oz	Port San Luis	10/8/1998	Tom Foran	
Opaleye	6 lb 4 oz	Los Flores Creek	5/13/1956	Leonard Itkoff	
Perch, Pile	OPEN				
Ray, Bat		Huntington Beach	7/24/1978	Bradley Dew	
Rockfish, Black	9 lb 2 oz	S. F. Light Station	9/3/1988	Trent Wilcox	
Rockfish, Blue			10/14/1993	Terry Lamb Jr.	
Rockfish, Bocaccio Rockfish, Bronzespott		Pt St Georges Reef	2/22/1997	Sam Strait Conor Gorey	
Rockfish, Brown		Trinidad Bay	9/15/2001	Greta Wengert	
Rockfish, Canary	14 oz		10/21/1999	Richard O. Bean	
Rockfish, China	3 lb 4 oz	Russian River	7/24/1998	Joe Newman	
Rockfish, Copper	8 lb 3 oz	Pigeon Point	8/18/1985	Kenny Aab	
Rockfish, Cowcod*		Hidden Reef	8/10/1998	Carlos A. Herrera	
Rockfish, Grass	5 lb 1 oz	00	9/10/1995	Ken Roberts	
Rockfish, Olive		St. Augustine Reef		Haady Forbes	
Rockfish, Vermilion Rockfish, Yelloweye	14 lb 9 oz	Morro Bay Piedras Blancas	7/31/1996 4/15/1994	Bobby Cruce John Cossey	
Rockfish, Yellowtail		Alder Creek	8/4/1991	Alberto Cortez	
Salmon, Chinook (Kin			10/10/1997	Bryan Dalton	
Scorpionfish (Sculpin)		Silver Strand Beach		Nathan Weatherson	
Seabass, White	77 lb 4 oz	San Diego	4/8/1950	H. P. Bledsoe	
Seaperch, Black	OPEN				
Seaperch, Rubberlip	4 lb 4 oz	Monterey Dunes	6/24/1995	Joe Manalac	
Seaperch, Striped	OPEN	M D	11 /0 /1005	A CLEDIA	
Seaperch, Barred Seaperch, Barred	4 lb 2 oz 4 lb 2 oz	Morro Bay Oxnard	11/8/1995	Artie J. Ferguson	
Seaperch, Redtail	OPEN	Oxharu	3/30/1996	Fred Oakley	
Shark, Blue		Cherry Bank	11/27/1999	Richard Q. Bean	
Shark, Leopard	40 lb 10 oz		5/13/1994	Fred Oakley	
Shark, Mako (Bonito)		Santa Barbara Is.	9/5/1999	Tom Brooks Jr.	
Shark, Sevengill	276  lb  0  oz	Humboldt Bay	10/17/1996	Cliff Brewer	
Shark, Thresher	527 lb 0 oz		10/4/1980	Kenneth Schilling	
Sheephead, California			12/6/1978	Tibor Molnar Jr.	
Sole, Fantail		San Clemente Islan		Allan Sheridan	
	337 lb 12 oz 90 lb 0 oz	San Clemente Islan	a 6/6/1958 10/21/1997	Keith Grover Don Giberson	
Tuna, Albacore Tuna, Bigeye		Butterfly Bank	8/1/1987	Steve Hutchinson	
Tuna, Bluefin	240 lb 0 oz 243 lb 11 oz		9/8/1990	Karl E. Schmidbauer	
Tuna, Skipjack	26 lb 0 oz		8/28/1970	William Hall	
Tuna, Yellowfin		Catalina Island	11/4/1984	Ronald B. Howarth	
Whitefish, Ocean		Cortes Bank	4/23/1988	Bob Schwenk	
Yellowtail	63 lb 1 oz	Santa Barbara Is.	6/18/2000	Kwang Nam Lee	

<sup>\*</sup>State law presently prohibits the take of giant (black) sea bass and cowcod off the California coast.